DMX Splitter Pro 3+5 pin

DMX splitter

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1 General information

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

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1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Cross-references

References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See ⬦ *'Cross-references' on page 6*.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – suspended load.

Warning signs	Type of danger
	Warning – danger zone.

2   Safety instructions

Intended use

This device is intended to be used for the distribution of DMX signals from one to multiple DMX chains, or to extend a DMX chain. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

Safety

> ⚠️ **DANGER!**
> **Danger for children**
>
> Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!
>
> Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!
>
> Never let children unattended use electrical devices.

> ⚡ **DANGER!**
> **Electric shock caused by high voltages inside**
>
> Within the device there are areas where high voltages may be present. Never remove any covers.
>
> There are no user-serviceable parts inside.

DANGER!

Electric shock caused by short-circuit

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

NOTICE!

Risk of fire

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.

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! **NOTICE!**
Operating conditions
This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

! **NOTICE!**
Power supply
Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

- Professional DMX splitter
- Buffering, amplification and distribution of the DMX-512 signal to four DMX chains in active mode
- Looping the DMX-512 signal in passive mode
- 1 × DMX input
- 1 × passive DMX output
- 4 × active DMX outputs
- Each DMX in and output in three-pin and five-pin design
- Active outputs galvanically isolated from the inputs
- Each passive out and input isolated from each other to over 2000 V
- Control LEDs
- powerCon in and output for optional supply of further devices

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

You can install the device standing or hanging upside down. When in use, the device must be mounted at a solid surface or clamped to an approved truss.

Work from a stable platform whenever you install or move the device or when you perform any kind of maintenance. Block access under the work area.

> **WARNING!**
> **Risk of injury caused by falling objects**
> Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

> **NOTICE!**
> **Possible data transmission errors**
> For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.
>
> Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Mounting options

The thread holes (M10) are used for secure attachment of flight adapters (Half Coupler, Trigger, Clamps, C-hooks, etc.). The safety cable must be routed through the safety eyelet on the rear side (⌕ *Chapter 6 'Connections and operating elements' on page 19*).

5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.
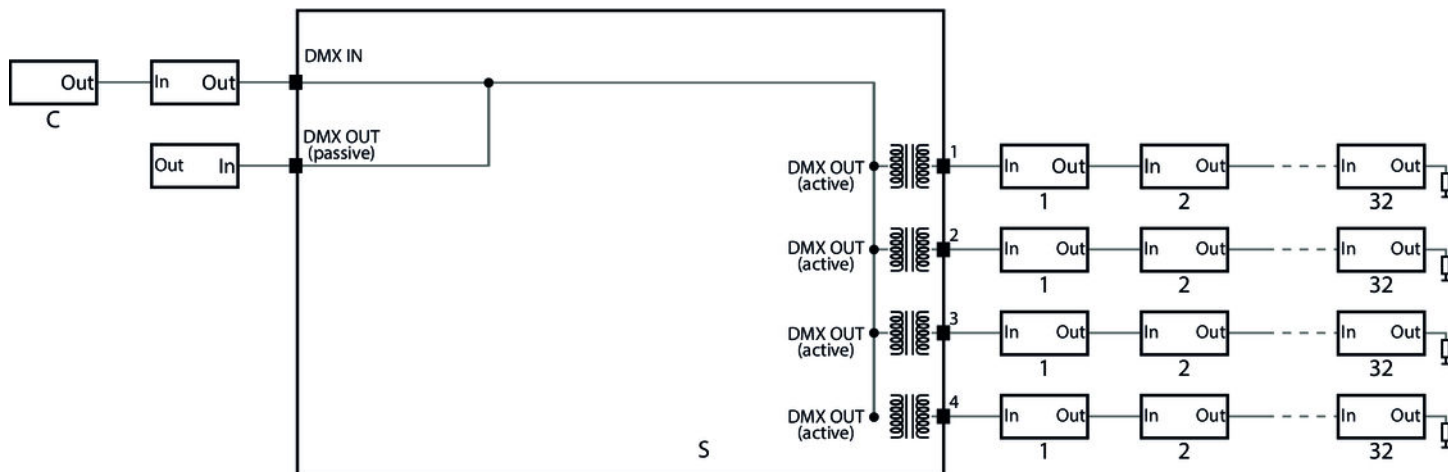
DMX connections

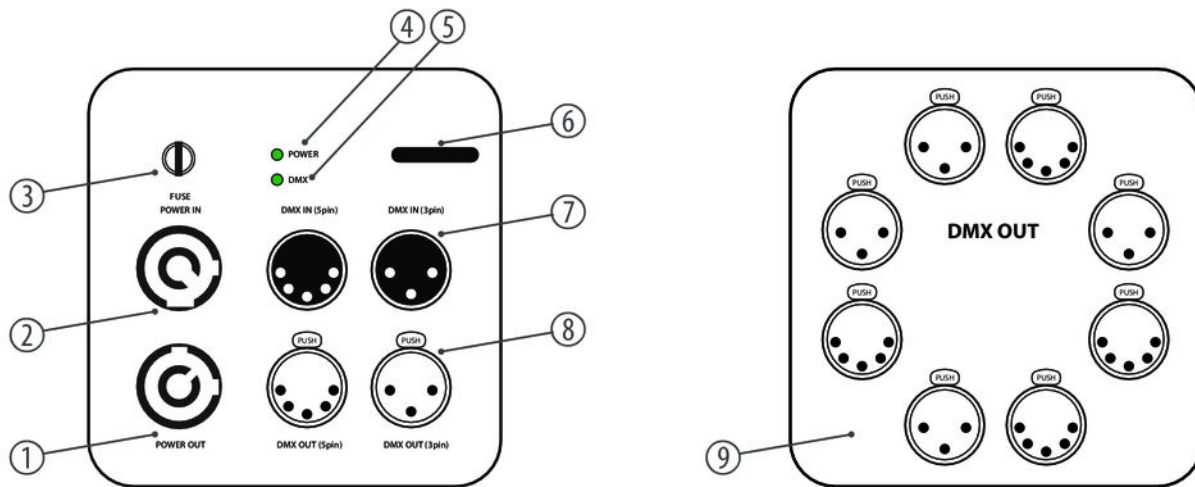The following graphic illustrates how to integrate the unit into a DMX configuration.

Use the product (S) as the last part of the DMX chain that begins with your DMX controller (C). Therefore, connect the output of the last device to the input of the DMX splitter.

You can connect one DMX chain to each active DMX output of the device (S) (DMX splitter). Connect the output of the first DMX device to the input of the second and continue this way until all devices are connected. Make sure that the output of the last DMX device in the chain is terminated by a resistor (110 Ω, ¼ W). You can even expand the configuration of your DMX network if you are running additional DMX splitters at the end of the DMX chains. Keep in mind that the total number of usable DMX addresses in a 'DMX universe' is limited to 512.

On the passive DMX output, the signal is looped through to a connected device.

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DMX IN

DMX OUT (passive)

C

S

DMX OUT (active) 1

DMX OUT (active) 2

DMX OUT (active) 3

DMX OUT (active) 4

6 Connections and operating elements

1	*[POWER OUT]* powerCON output to supply connected equipment with AC voltage.
2	*[POWER IN]* powerCON input for the power supply of the device. Once the power plug is connected to an AC outlet, AC voltage is present and the unit is operational.
3	Fuse holder.
4	*[POWER]* Indicator LED. This LED lights up green when the device is turned on.
5	*[DMX]* Indicator LED. This LED lights green when the unit is turned on and receives a DMX signal.
6	Safety eyelet.
7	*[DMX IN]* DMX input in three-pin and five-pin design.

8	*[DMX OUT]*
	Passive DMX output for looping the signal to a connected device, in three-pin and five-pin design.
9	*[DMX OUT]*
	4 × active DMX outputs for buffering, amplifying and distributing the signal to further DMX chains, in three-pin and five-pin design (for pin assignment see ↳ *Chapter 8 'Plug and connection assignment' on page 23*).

7 Technical specifications

Operating supply voltage	AC 230 V ∼ , 50/60 Hz
Fuse	5 mm × 20 mm, 1 A, 250 V, slow-blow
Dimensions (W × D × H)	156 mm × 120 mm × 120mm
Weight	1.28 kg

8 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX–, 'cold signal')
3	Signal (DMX+, 'hot signal')

DMX connections

A five-pin XLR socket serves as DMX output, a five-pin XLR plug serves as DMX input. The drawing below and the table show the pin assignment of a matching coupling.

Pin	Assignment
1	Ground (shielding)
2	Signal inverted (DMX–, 'cold')
3	Signal (DMX+, 'hot')
4	unused / second connection (DMX–)
5	unused / second connection (DMX+)

9 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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Notes